THE EFFECT OF THE INTERACTION BETWEEN INCOME AND PRICES ON TOURIST CHOICE

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ABSTRACT

Based on the Theory of Consumer Demand we test the impact of the interaction between income and prices on the tourist decision process: going on holiday, coastal character and urban character of the destination. The methodology uses Multinomial Logit Models with Random Coefficients. The empirical application carried out in Spain on a sample of 2,491 individuals evidences the nested and non-independent character of these tourist decisions, revealing the proposed multi-stage decision making process. Moreover, although it is confirmed the negative effect of prices, it is found to be moderated by income, evidencing a differentiated effect -direct and inverse- of the "income *x* price" interaction on the different types of destinations, coastal and inland.

Key words: Tourist behaviour, Sequential decision process, Random Parameter Logit Model.

1. INTRODUCTION

The interest in the way in which individuals decide on purchase alternatives (product, brand, etc.) has made the analysis of choice and preference formation one of the most studied areas of marketing in recent years (Zwerina, 1997). A contribution to this is the development of probabilistic choice models derived from the Random Utility Theory.

In general, the study of choice has been conducted from multiple perspectives due to the multiple sub-decisions involved in the decision making process (Fesenmaier and Jeng, 2000). If the focus is on the basic choice made by tourists, i.e. to take a vacation, one finds that the literature of probabilistic choice usually treats this as a single decision and applies Binomial Logit models (e.g. Hay and McConnel, 1979; Miller and Hay, 198; Walsh et al., 1992). If the focus is on the choice of tourist destination, the authors also consider the single decision of selecting one destination among several alternatives, which are defined in terms of administrative units (e.g. countries: Haider & Ewing, 1990; Morley, 1994a; 1994b), macro destinations (through the aggregation of geographical areas, (in Siderelis and Moore, 1998) and destination type (such as regional or national natural parks, in Wennergren and Nielsen, 1968; Perdue, 1986; Borgers et al., 1989; Fesenmaier, 1988; Morey et al., 1991; Dubin, 1998; Train, 1998; Riera, 2000; Adamowicz et al., 1994; Adamowicz et al., 1998; Schroeder and Louviere, 1999). These studies apply Multinomial Logit model.

However, Eymann & Ronning (1992) and Eymann (1995) believe that tourist choice is a more complex process which can be separated into various stages incorporating the following decisions: to take a vacation (obviously, the decision to leave the usual place of residence during the vacation period constitutes the first choice made by tourists (Morley 1992 1995; Seddighi & Theocharous 2002)), to go abroad and choice of destination country. To test this process, these authors use a Nested Logit Model because it resolves the problem of the assumption of Independence from Irrelevant Alternatives (IIA) and is therefore more suitable for the analysis of multi-choice decisions.

Following this approach, we propose that the decisions to go on holiday, the type of destination in terms of their coastal character (coastal vs. inland) and their urban character (village vs. city) are nested and non independent decisions. Therefore, we assume that tourists make three sequential decisions before arriving at their final choice: the decision to go on holiday, the coastal/inland decision and the decision over the urban character of the destination. However, we do not know the sequence of the two destination decisions.

In particular, the examination of destination choices of a “costal-inland” and “village/city” type and its sequence is under-developed in the literature. However, these aspects are important because tourists have recently changed their holiday habits. First, there is a tendency of tourists to look for alternatives to the sun, sea and sand type holiday (Bote, 1987; Fuentes, 1995) which predominates in countries like Spain. The development of these alternatives is largely found in inland areas, as it allows for environmental improvements, land planning, reductions in rural exodus and income generation through the diversification of the local economy. Second, tourists increasingly find more exciting reasons, like that of “*this time I go to a city and another day I will go to a small* village”. Third, tourists buy cheaper or more expensive depending on their wishes in a specific time. Therefore, the study of the

distinctive individual aspects which lead to the selection of these destination types is crucial for the development of tourism policies by public bodies and for the marketing strategies of the tourist industry.

With regard to the determinate factors of these nested tourist decisions, we rely on the Economic Theory which suggests that the major determinants for tourism are the income of tourists and the prices of products. On this account, we consider consumer income, price of destinations and the interaction between them. Despite the fact that both dimensions have been widely used in tourist demand studies (Vanegas and Croes, 2000), we find no studies that cover the differentiated and interactive effect that these dimensions can have on destination types.

In virtue of the above, the objective of this study is to test two alternative three-stage decision process: to go on holiday/coastal character/urban character versus to go on holiday/urban character/coastal character (see Figure 1). Also, we test the determinant factors for the basic decision to go on holiday (first stage) and for the resulting main second-level nests of destinations types (obtained from the optimum order of the second and third stages), in terms of consumer income, price of destinations and the "income *x* prices" interaction.

To test this multi-stage decision making process and the hypothesis stated, it is proposed a Random-Coefficient Multinomial Logit Model to find the correlations structure of the non-independent alternatives. This is because McFadden & Train (2000) have demonstrated that any random utility model (such as the Nested Logit Model) can be approximated by a Random-Coefficient Multinomial Logit Model. This model also finds the heterogeneity between tourist preferences by assuming that the coefficients of the variables vary among tourists. The empirical application is carried out in Spain on a sample of 2,491 individuals.

In order to fulfil this objective, the remainder of the paper is arranged as follows: The second section proposes and justifies the hypothesis on the interaction effect between income and price on the choice of tourist destination type. The third section covers the design of the investigation; describing the methodology, sample and variables used. The fourth section presents the results obtained and their discussion. Finally, the fifth section summarises the conclusions.

2. HYPOTHESIS ON THE CHOICE OF DESTINATION TYPE

In order to examine interdependences among the proposed three decisions, the literature of choice is revised so as to find the determinant factors of these decisions, and to state and test a research hypothesis.

In general, literature considers income level to be crucial in the decision to go on holiday (Mergoupis & Steuer, 2003); explanatory variable in consumer demand which stems from the Economic theory of consumer behavior. Income is a personal budget restriction which determines the spending capacity of individuals and it is taken into account in order to maximize utility (Crawford & Godbey 1987). Essentially, empirical literature shows that medium-high and high income groups are more likely to take vacations (Bardón 1991; Hay & McConnell 1979; I.E.T., 2000; S.G.T. 1989a, 1992, 1993; Walsh et al. 1992). This result corroborates the idea that tourism generally behaves as a *normal good* with positive demand-income elasticity, increasing its consumption as income increases (Davis & Mangan 1992; Middleton 1994).

In this point, we propose that income levels also moderate the effect of prices when choosing a destination. This interaction effect between prices of destination and consumer income in the choice of type of tourist products is argued as follows: In general, literature holds that demand for tourism products is that of an *ordinary good*, in such a way that price increments diminish consumption (Smith, 1995; Lanquar, 2001; Serra, 2002), meaning that price is considered as a factor which reduces the utility of a destination. At an empirical level, a negative relationship between price and destination choice is found by Morey et al. (1991), Dubin (1998), Train (1998), Riera (2000) and Siderelis & Moore (1998) in the case of natural parks; by Haider & Ewing (1990), Morley (1994a; 1994b) and Eymann & Ronning (1992) for countries (administrative units) and by Siderelis & Moore (1998) for macro-destinations. Conversely, another line of thought proposes that price does not necessarily have a dissuasive effect on destination choice, but that it can be an attraction factor. Morrison (1996) indicates that the underlying hedonistic character often found in the consumption of tourism products implies that high prices do not always act against demand; rather that the concept of value for money, which compares the amount spent with the quality of installations and service, takes over (Morrison, 1996). This implies an association of price increase with demand increase.

Alternatively, we assume that the impact of prices of destinations depends on the income of consumers; in other words, we propose the interaction between customer income and price of destinations in order to explain the choice of tourist destinations. Basically, the Economic Theory considers that an individual optimizes the purchase decision according to product price and available budget (Rugg, 1973; Morley, 1992). In this way, prices have different influences among individuals with different income levels. Thus, we can expect high income individuals to go to more expensive destinations, which assumes that the negative effect of prices is lower for these people. Conversely, the negative price effect is greater for lower income individuals and we can expect them to go to lower priced destinations. In virtue of the above, we propose the following hypothesis:

H.1.: *The choice of destination is influenced by the interaction between the price of destinations and tourist income in such a way that greater levels of income lead to reduce the negative effect of prices.*

3. RESEARCH DESIGN

3.1. Methodology

For the analysis of the multi-stage decision process of type of destination we propose the estimation of Multinomial Logit Models with random coefficients (RCL) due to: i) its ability to deal with the unobserved heterogeneity of tourists, by assuming that the coefficients of the variables vary among tourists; and ii) its flexibility, which allows representation of different correlation patterns among alternatives.

With regard to the first point, it is highly unlikely that the whole tourist sample has the same set of parameter values, which implies the need to consider unobserved heterogeneity of tourists in parameter estimations. Hence, the utility of alternative *i* for tourist *t* is defined as $U_{it} = X_{it}\beta_t + \varepsilon_{it}$ where X_{it} is a vector that represents the attributes of the destination and the characteristics of tourists; β_t is the vector of coefficients of these attributes of destinations and characteristics for each individual *t* which represent personal tastes; and ε_{it} is a random term that is iid extreme value. This specification of the RCL model

allows coefficients β_t to vary over decision makers with density $f(\beta)$), which means that it differs from the traditional Logit model in which β is fixed. As β_t is not observable, the non-conditional probability is the integral of $P_t(i/\beta_t)$ over all the possible values of β_t:

$$P_i = \int_{\beta_t} \frac{\exp\left\{\sum_{h=1}^{H} x_{ih}\beta_{th}\right\}}{\sum_{j=1}^{J}\exp\left\{\sum_{h=1}^{H} x_{jh}\beta_{th}\right\}} \phi(\beta_t \mid b, W)d\beta_t$$

where J is the number of alternatives and ϕ is the density function of β_t, assuming that β_t is distributed as a Normal with average b and variance W[1].

With regard to the second aspect, the flexibility of the RCL model allows one to avoid the assumption of Independence from Irrelevant Alternatives (IIA). In fact, it does not exhibit the restrictive substitution patterns of the Logit model, as the ratio of probabilities P_{ti}/P_{tj} depends on all the data, including the attributes of alternatives other than i and j.

Additionally, the flexibility of the RCL model also allows representation of any random utility model (McFadden & Train, 2000). In particular, an RCL model can approximate a Nested Logit (NL), which, to date, has been used in the analysis of multi-stage tourist choice processes (Eymann and Ronning, 1992; Eymann, 1995). Following Browstone & Train (1999), the RCL model is analogous to an NL model in that it groups the alternatives into nests by including a dummy variable in the utility function which indicates which nest an alternative belongs to. The presence of a common random parameter for alternatives in the same nest allows us to obtain a co-variance matrix with elements distinct from zero outside the diagonal, obtaining a similar correlation pattern to that of an LN model.

3.2. Sample, Data and Variables

To reach our proposed objectives, we have used information on tourist choice behaviour obtained from the national survey "Spanish Holidaying Behaviour (III)", which was carried out by the Spanish Centre for Sociological Research. This is due to the following reasons: i) The availability of information on individual tourist destination choice behaviour in terms of the types of destinations "costal-inland" and "village-city"; and ii) The survey is directed at a sample (over 18 years old) obtained in origin, which avoids the characteristic selection bias of destination collected samples, leading to a more precise analysis of tourist demand. The sample is taken by using multistage sampling, stratified by conglomerations, with proportional selection of primary units -cities- and of secondary units -censorial sections-. The information was collected through personal, at home, interviews with a structured questionnaire. The sample size is of 2,491 individuals, which represents a sample error of ±2.00% for a confidence level of 95.5%.

In order to make the choice models operative, we will define the variables used and identify the dependent and independent variables.

1) *Dependent variables.* To represent the set of destination types available to the tourist, we use the following five dummy variables: i) coastal-village, which takes a value of 1 when this combination is chosen and 0 if not; ii) coastal-city, where a value of 1 shows that it has been chosen and 0 if not; iii)

[1] A significant variance estimation implies the superiority of the Random coefficients Logit model over the Multinomial Logit model (Train, 2003).

inland-village, which takes a value of 1 when chosen and 0 if not; iv) inland-city, where a value of 1 shows that it has been chosen and 0 if not; and v) not going on holidays.

2) Independent Variables.

a) *Income*. This dimension considers different income levels in order to observe the possible non-linearity of their effect (Eymann & Ronning 1997). Monthly income levels are placed into the following categories: *Income 1*, up to 600€ per month; *Income 2*, between 600 and 1200€; *Income 3*, between 1200 and 2400€; *Income 4*, between 2400 and 4500€; and *Income 5*, more than 4500€. Income 1 is taken as the base reference.

b) *Destination Prices*. Literature measures the prices of a destination with different indicators. For example, costs at the destination in absolute quantities or in terms relative to individual tourist income. However, the difficulties tourists have in knowing, a priori, all costs (e.g. goods bought at destination) and the exact cost of each component, oblige researchers to make simplifications in their empirical applications. Consequently, various authors propose the use of widely available proxies (compared to finding detailed price lists of products and services in each destination) to reflect the prices of a destination.

Morey et al. (1991), Dubin (1998), Train (1998), Riera (2000), Siderelis & Moore (1998) and Morley (1994a,b) employ travel costs as a proxy of total price, as it is one of the highest costs to the tourist. However, the measurement of travel costs is not without problems. Travel costs are made up of the following three elements (Ewing, 1980): i) the effective cost of travelling, measurable by the price paid on public transport (Dellaert et al., 1997; Morley 1994a; 1994b) or in a private vehicle; whether by unit of distance (e.g., 0.144 €/km (Riera, 2000) or 0.16$/mile (Siderelis & Moore, 1998)) or by total fuel costs (Train, 1998); ii) the physical and psychological effort of realising the journey, which, to date, has not been modelled given the impossibility of representing it in monetary terms and by unit of time (Ewing, 1980); and iii) the opportunity costs of the time given to the journey (what an individual would earn if s/he spent the travelling time on money earning activities) whose measurement has been very limited in literature; using estimations from other fields (value of time spent travelling to work (Cesario, 1976; Edward & Dennis, 1976) -- untrustworthy for tourism (Goodwin, 1976; Ewing, 1980); the result of regressing the number of journeys in a period on travelling time, salary and cost of transport (Hof & Rosenthal, 1987); or arbitrarily fixing a value of 1/3 of salary per hour (Train, 1998)). Another indicator is the exchange rate of the destination country (Witt & Martin, 1987; Morley, 1994a, 1994b).

In our application, prices of destination types coastal/inland and village/city are measured using another indicator proposed by literature as a proxy: the specific cost index for each destination and individual of Eymann & Ronning (1997). This is obtained with the following two stage procedure: i) a regression model is estimated $G_{it} = \alpha_i + \beta_i X_{it}^{(1)} + \gamma_i X_t^{(2)} + \varepsilon_{it}$ where G_{it} are the tourism costs of each individual t in each destination type, $X_{it}^{(1)}$ is the consumption intensity in the corresponding destination type i based on the number of days spent there, and $X_t^{(2)}$ are the socio-demographic characteristics of the individual (household size, marriage status and education); and ii) estimated parameters α_i,β_i and γ_i are used to construct the specific cost indices ICE_{it} for each destination and individual using the expression

$$ICE_{it} = \hat{\alpha}_i + \hat{\beta}_i \overline{X}_i^{(1)} + \hat{\gamma}_i X_t^{(2)}$$

where $\overline{X}_i^{(1)}$ represents the average consumption of variable $X_i^{(1)}$ in destination *i*.

The variables used in the estimation of the ICE_{it} are the following: *Tourism expenditures* (G_{it}). The variable relative to tourists expenditures is found by a quantitative variable which represents costs incurred during the holiday. Now, the explanatory variables ($X_{it}^{(1)}$ and $X_t^{(2)}$) of tourist expenses are described.

Duration of stay ($X_{it}^{(1)}$). If we consider that the number of days that a tourist spends away from the usual place of residence is "holiday quantity" (Silberman, 1985), we can assume a positive relationship between the duration of stay and expenditure incurred during the holiday: a greater number of days implies greater expenditure. Literature shows that the number of days spent at a certain destination (along with the number of tourists) has an influence on the level of income from tourist activity (Alegre & Pou, 2003). At an empirical level, the importance of length of stay to vacation expenditures has been shown in various studies (Spotts & Mahoney, 1991; Taylor et al., 1993; Nogawa et al., 1996; Saeton & Palmer, 1997; Von Limburg, 1997; Leones et al., 1998; Mules, 1998; Agarwal & Yochum, 1999; Aguiló & Juaneda, 2000; Cannon & Ford, 2002). In our study, length of stay is represented by a quantitative variable of the number of days that a tourist spends outside the usual place of residence, in line with Mak & Moncur (1979) and Silberman (1985).

Household size ($X_t^{(2)}$). With regard to the effect of household size on tourists expenditures, the effect is uncertain. While large families might be expected to spend more on recreation, expenditures on necessities would also increase, thus reducing the amount available for discretionary items such as recreation (Dardis et al., 1981). However, this reasoning appears to be more closely linked to the initial decision to go on holiday taken by a family. With regard to the family size/spending relationship, it is logical to expect that, once the initial decision to go on holiday has been taken; larger families will spend more, given that the services required are greater. In our work, household size is measured by the number of people living in the house (Caswell & McConnell, 1980; Eymann & Ronning, 1992; 1997; Walsh et al., 1992).

Marital status ($X_t^{(2)}$). Marital status is considered to be a determinant factor in vacation expenditure behaviour (Cai et al., 1995). In particular, the tourist activities of both partners are complementary and non-substitutional. The spending pattern differences between married and single people may be attributable to the incremental expenses of the spouse on vacations taken as joint activities by husbands and wives (Cai, 1998). Along this line, Dardis et al. (1981), Cai et al. (1995) and Cai (1998, 1999) find a positive relationship between vacation expenditures and marriage. For this dimension, a dummy variable is created where married=1 and single=0 (Hay & McConnell, 1979; Eymann & Ronning, 1997).

Education ($X_t^{(2)}$). According to Parker (1976), there is a positive link between the realisation of tourist activities and an individual's educational level. Higher levels of education foment interest in tourism. Firstly, this allows better access to information and knowledge (Cai et al., 1995) and, secondly, higher educational levels may provide training and preparation for some types of recreation activities (Dardis et al., 1981). Moreover, Dardis et al. (1981), Cai et al. (1995) and Cai (1998, 1999) find a positive

relationship between higher educational levels and greater tourists expenditures. This result can be explained by, firstly, the fact that people with higher educational qualifications usually find higher paid occupations, which allows them higher holiday budgets, and secondly, because people with higher educational levels take a greater number of foreign holidays (S.G.T., 1989a; 1992; 1993; Bardón, 1991; I.E.T., 2000), which usually cost more than national holidays. We establish three educational levels through three categorical variables: *Education 1*, Basic Education; *Education 2*, Secondary education; and *Education 3*, University Education. Category *Education 1* is taken as a base reference. (Caswell & McConnell, 1980; Eymann & Ronning, 1997; Riera, 2000).

4. RESULTS AND DISCUSSION

The test of the two alternative sequential multi-stage tourist choice process (see Figure 1) implies the estimation of several Random-Coefficient Logit Models. It allows us to identify the determinants of the decision to go on holiday in terms of the dimension "income" and of the decision of the type of destination, in terms of the interaction "price *x* income" (Hypothesis 1).

With regard to the sequential structure of the tourist decision, the likelihood function obtained for nested structure 1 (going on holiday-coastal/inland-city/village) is, in all cases, superior to that of nested structure 2 (going on holiday-city/village-coastal/inland) (See Table 1). This result indicates that the optimum structure to represent the tourist decision sequence is nested structure 1, with a first stage in which individuals decide whether or not to go on holiday; a second stage in which those who decide to go on holiday choose between coastal and inland destination types and a third stage which decides the urban character (city or village) of the previously selected coastal or inland destination. In other words, the "costal-inland" choice precedes the "village-city" choice. In accordance with nested structure 1 (chosen to explain the determinate factors in Table 2), in all equations, at least one standar deviation of the coefficient of the nests is significant, which suggests the existence of correlation among the alternatives in these nests. To sum up, these results obtained show that tourist choice is a complex process which can be broken down into three stages: the decisions to take a vacation, the coastal character and the urban character of the destination, which are nested non independent decisions.

Table 1. Maximum likelihood of the alternative nested structures

	Equation 1	**Equation 2**	**Equation 3**
ML(θ) of the Nested Structure 1	-3672.98	-3609.75	-3615.61
ML(θ) of the Nested Structure 2	-3701.15	-3636.96	-3708.05

With regard to the coefficients estimated (Table 2), it is important to stress that the significance of parameter *b* indicates the average effect of the dimension analysed, and that the significance of the parameter of standard deviation SD(β) shows that the effect of this dimension is different for each tourist (which evidences the existence of heterogeneity and the superiority of the RCL model over the standard Logit). The results obtained show the following:

On the first stage of the choice process (decision to go on holiday), all the categorical variables relative to income levels show a positive sign. Moreover, all the parameters are significantly greater than those of the reference category of low income (*Income 1*) and show that the two middle income categories (*income 3* & *4*) have the greatest impact on the probability of taking a vacation, which suggests the presence of a saturation point. This evidences partially the idea that the consumption of vacation products

is positively related to income. According to Davis & Mangan (1992), tourists expenditure initially rises steeply as income rises, but the rate of increase declines as saturation is approached. Therefore, this type of product behaves as *normal goods* with a saturation point (Davis & Mangan 1992).

TABLE 2
SEQUENTIAL TOURIST CHOICE PROCESS OF DESTINATION TYPES

Independent Variables	Equation 1		Equation 2		Equation 3	
	b	**SD of β**	***b***	**SD of β**	***b***	**SD of β**
Decision to go on holidays						
Income 2	0.932[a]	0.158[a]	1.071[a]	0.535[b]	1.258[a]	0.266[a]
	(0.072)	(12.919)	(0.066)	(0.176)	(0.101)	(0.059)
Income 3	2.739[a]	0.173[a]	2.897[a]	0.505[a]	2.739[a]	0.275[a]
	(0.037)	(73.846)	(0.169)	(0.114)	(0.041)	(0.054)
Income 4	1.887[a]	0.250[c]	1.722[a]	0.350	1.720[a]	0.393[a]
	(0.087)	(0.124)	(0.054)	(0.221)	(0.052)	(0.079)
Income 5	0.711[a]	0.374[a]	1.088[a]	0.938[a]	0.390[a]	0.369[b]
	(0.116)	(0.066)	(0.103)	(0.191)	(0.071)	(0.137)
Choice of tourist product type						
Prices	-0.055[a]	0.020[a]	-0.068[a]	0.018[a]	-0.059[a]	0.019[a]
	(0.005)	(0.002)	(0.017)	(0.005)	(0.009)	(0.005)
Prices *x* Income 2			0.082[a]	0.025[b]		
			(0.018)	(0.009)		
Prices *x* Income 3			0.155[a]	0.025[a]		
			(0.032)	(0.005)		
Prices *x* Income 4			0.164[b]	0.048[a]		
			(0.061)	(0.007)		
Prices *x* Income 5			0.115	0.183[a]		
			(0.125)	(0.036)		
Prices "coastal destinations" *x* Income 2					0.018	0.046[a]
					(0.017)	(0.006)
Prices "coastal destinations" *x* Income 3					0.101[a]	0.044[a]
					(0.022)	(0.007)
Prices "coastal destinations" *x* Income 4					0.124[b]	0.061[a]
					(0.047)	(0.012)
Prices "coastal destinations" *x* Income 5					0.033	0.306[b]
					(0.064)	(0.111)
Prices "inland destinations" *x* Income 2					-0.030	0.033[b]
					(0.016)	(0.013)
Prices "inland destinations" *x* Income 3					0.029	0.053[b]
					(0.017)	(0.019)
Prices "inland destinations" *x* Income 4					-0.136[b]	0.124[a]
					(0.050)	(0.033)
Prices "inland destinations" *x* Income 5					-0.165[b]	0.234[b]
					(0.051)	(0.081)
Constant 1	12.517[a]	633.34[c]	12.445[a]	0.188[a]	12.495[a]	0.376[a]
	(2.419)	(298.87)	(0.080)	(0.027)	(0.095)	(0.103)
Constant 2	-1.329[a]	0.812[a]	-119.753[a]	18155.565[c]	-87.121[a]	11493.841[c]
	(0.223)	(0.187)	(35.654)	(8971.98)	(22.471)	(4843.581)
Constant 3	10.365[a]	1212.65[a]	9.811[a]	1.594[c]	8.727[a]	0.488[a]
	(1.929)	(295.90)	(0.417)	(0.641)	(0.093)	(0.114)
Constant 4	0.019	0.348[c]	-30.904	1917.987	-32.030[c]	1930.998
	(0.133)	(0.173)	(17.813)	(1451.03)	(15.133)	(1186.597)
Nest 1 = "coastal destinations"	-4.551	34532.68[a]	-9.020[c]	1922.460	-2.525[a]	0.272[b]
	(7.195)	(9778.80)	(3.899)	(1852.46)	(0.073)	(0.090)
Nest 2 = "inland destinations"	4.723[a]	1.359	4.749[a]	0.148[c]	4.912[a]	0.889[a]
	(0.283)	(0.784)	(0.046)	(0.058)	(0.0380)	(0.190)

a=prob<0,1%; b=prob<1%; c=prob<5%.

For those individuals that make a first stage decision to go on holiday and then decide on the destination type, we find a negative sign for price. It suggests that tourists tend to choose destinations with lower prices; in line with Smith (1995) and Lanquar (2001). Therefore, it supports the research thread that holds that price is a dissuasive element that reduces the utility of a destination and, therefore, that tourism products are ordinary goods.

Standard deviation of the coefficient of price is significant in all equations, which indicates that its effect is not homogeneous for all individuals and suggests an examination of the interactive effect "price *x* income". In this way, when prices are distinguished by destination type (Equation 2), the coefficients corresponding to the interaction between prices and income levels 2, 3 and 4 are positive and significantly higher than that of level 1. This shows that high income groups are not so affected by high prices, which supports hypothesis H.1. This result can be explained for this tourist group by the hedonistic character of the consumption of tourist products (Morrison, 1996) and, therefore, by the importance of the concept of *value for money*. In principle, this would imply that an increase in the available tourist products for an individual (as a consequence of an income increase), leads to the choice of higher priced products. However, the parameter of income category 5 is not significant, which again suggests a saturation point when individuals reach a certain income level. In other words, the fact that lower budget restrictions allow individuals of this income category a greater number of alternatives does not imply that they will always opt for higher priced products.

When we analyse the interaction between price and income, distinguishing the destination types that make up the principal nests (coastal/inland destinations), we observe different behaviour patterns. For coastal destinations, the effect of the interaction is significant and positive for income groups 3 and 4, which suggests a saturation point for these destinations. In other words, high prices for coastal destinations are an surmountable barrier as income increases, but for higher income individuals, the greater ability to acquire high priced products does not lead them to choose the most expensive. The jump from income level 2 to levels 3 or 4 leads to individuals selecting more expensive coastal destinations (from their set of alternatives), whereas the step up to level 5 (which gives access to the most expensive coastal destinations) does not imply that they will choose the most expensive. Once more, these results seem to indicate that when a high income level is reached, selection of coastal destinations is not determined by price. Conversely, for inland destinations, only the price/income interactions of income levels 4 and 5 are significant and with a negative sign. These results indicate that, for people in categories 1, 2 and 3, the direct negative effect of price is maintained (income does not moderate the price effect); but for categories 4 and 5, this negative influence is even stronger. In other words, people with greater purchasing power do not choose expensive inland destinations.

These destination type differentiated results suggest that a person looking for luxury in tourist products tends to consume coastal products. Accordingly, a person from income categories 3 or 4 has a greater disposition to pay higher prices on the coast than inland.

Finally, an aspect to be highlighted is the significance of the parameter of standard deviation SD(β). It appears to be significant in most of variables, showing that the effect of each dimension is different for each tourist and evidencing the existence of heterogeneity. At the same time, this fact confirms the superiority of the RCL model over the standard Logit.

5. CONCLUSIONS

The idea that the choice of tourist destination can be considered a multi-stage process, through which the tourist first decides whether or not to go on holiday and then the type of destination (coastal and urban character), has allowed us to analyse this aspect in the context of a sample of 2,491 Spanish individuals obtained in origin. We propose the use of a Random-Parameter Logit Model which allows for

the simultaneous modelling of these decisions and the testing of the hypothesis derived from the Theory of Consumer Demand in terms of income, prices and the interaction between these two dimensions. The empirical application carried out on the sample reaches the following conclusions:

Regarding the joint modelization, it is evidenced the nested and non-independent character of the tourist decisions to go on holiday and the type of destination, which reveals the multi-stage nature of the decision making process. The optimum structure which best represents the tourist decision sequence is that in with the first stage of deciding to go on holiday; a second stage of choosing between coastal and inland destinations and a third stage of deciding the urban character (city/village) of the previously selected destination (coastal/inland). Therefore, the decision of the choice of destination type should be modelled jointly with the decision to go on holiday due to the dependency between them and the coastal/inland decision should precede the city/village decision.

With regard to the determinate factor of the decision to go on holiday (first stage of the sequential decision process), the idea that higher income leads to greater consumption of tourist products is partially supported, as there is a saturation point for people with the highest income levels. Therefore, this type of product behaves as *normal goods* with a saturation point.

For tourists that decide to go on holiday in the first stage, we find that prices reduce their utility, which supports the idea that tourism products are ordinary goods. However, there is a significant "price *x* income" interactive effect, which suggests that income moderates the price effect and shows a differentiated effect for coastal and inland destinations. For coastal destinations, we find an inverse moderating effect in income groups 3 and 4 on the price effect; in other words, an income increase to levels 3 and 4 reduces the negative price effect. For inland destinations, we find a direct moderating effect for income groups 4 and 5 on the price effect, which means that being in these income groups increases the negative price effect.

As implications for management, it can be mentioned that knowledge of the three-stage sequential choice process (going on holiday, coastal/inland and city/village) is fundamental for tourism organisations. In particular, the result obtained that the coastal/inland choice is made before the city/village choice indicates that, in countries such as Spain, inland tourism is established in the mind of tourists as an alternative to the traditional sun, sea and sand holiday, whereas the city/village choice is subordinate to the earlier decision. This should be born in mind by tourism bodies in such a way that their main positioning criteria would be diversification in both aspects (coastal/inland) or specialisation in one of the two.

Moreover, tourist and destination type profiles allow these bodies to better design their marketing policies and strategies, adapting them to the aspects they consider most important. Price fixing in tourist destinations should consider that the sensitivity of tourists to price changes differs according to available income and destination type -coastal and inland-, as it appears that tourists with more buying power show greater tendency towards coastal than towards inland destinations.

Among the limitations of this study are the following: i) its static character, as it is only based on the main annual holiday of an individual. Alternatively, an analysis of all holidays taken (main holiday, weekend trips etc.) in a year or over various years with panel data would allow us a better understanding of the dimensions of income and prices; ii) the field of study is Spain. It would be better if the results

were reinforced by applications on other geographical areas in order to be able to generalise the conclusions; and iii) we do not consider specific destinations, rather types of destinations. This could impede knowledge of the impact of the characteristic factors of a particular destination. However, this way of working allows us to find the influence of the dimensions in a general manner.

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